### **ENERGY CONSERVATION PROGRAM PROCEDURES**

- **1. REASON FOR ISSUE:** This handbook establishes procedures for VA's energy conservation program.
- **2. SUMMARY OF CONTENTS:** The contents outline the procedures that Administrations and staff offices will implement for VA's energy conservation program (VAECP). The intent of this handbook is to identify specific goals for the Department and to assist VA organizations with implementing the VAECP.
- **3. RESPONSIBLE OFFICE:** The Office of Management (004) is responsible for the contents of this handbook.
- 4. RELATED DIRECTIVE: VA Directive 0055, VA Energy Conservation Program

5. RESCISSIONS: None.

CERTIFIED BY:

BY DIRECTION OF THE SECRETARY

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# **ENERGY CONSERVATION PROGRAM PROCEDURES**

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#### **ENERGY CONSERVATION PROGRAM PROCEDURES**

- 1. GOALS AND REQUIREMENTS. To meet the federal energy mandates identified in paragraph 2.a. of the VA Energy Conservation Program Directive 0055, the Department will implement an energy conservation program that reduces greenhouse gases, reduces energy consumption, expands the use of renewable energy, reduces the use of petroleum, reduces water consumption, develops and constructs energy-conserving buildings, and incorporates the use of energy-efficient equipment in all VA facilities. To make certain all aspects of the Department are properly accounted for, VA will require each administration and staff office to implement broad strategies with specific measures. Each administration and staff office shall develop annual reports and strategic plans for energy conservation to ensure that the following goals are accomplished at all facilities. In addition to the federal mandates as listed below, VA will establish energy conservation goals in the future.
- a. Greenhouse Gases Reduction. Using life-cycle cost-effective measures, VA shall reduce its greenhouse gas emissions attributed to facility energy use by 30 percent by 2010 compared to such emission levels in 1990.
- b. Energy Efficiency Improvement. Through life-cycle cost-effective measures, VA shall reduce energy consumption per gross square foot of its facilities, 35 percent by 2010, relative to 1985 baseline data, or facilities identified as "energy intensive" can reduce energy consumption 25 percent by 2010, relative to a 1990 baseline.
- c. Renewable Energy. VA shall strive to expand the use of renewable (e.g., solar, wind, water) energy within its facilities and in its activities by implementing renewable energy projects and by purchasing electricity from renewable energy sources.
- d. Petroleum. Through life-cycle cost-effective measures, VA shall reduce the use of petroleum within its facilities. The reduction may be accomplished by switching to a less greenhouse gas-intensive, non-petroleum-based energy source, such as natural gas or renewable energy sources; by eliminating unnecessary fuel use; or by other appropriate methods.

e. Source Energy. VA shall strive to reduce total energy use and associated greenhouse gas and other air emissions, as measured at the source. VA shall undertake life-cycle cost-effective projects in which source energy decreases, even if site energy use increases.

- f. Water Conservation. Using life-cycle cost-effective measures, VA shall reduce water consumption and associated energy use in its facilities. Water cost savings and associated energy cost savings shall be included in energy assessments. Additionally, VA will meet the goals set forth by the Federal Energy Management Program regarding the completion schedule of water management plans. The schedule is as follows:
  - (1) 5% of facilities by 2002;
  - (2) 15% of facilities by 2004;
  - (3) 30% of facilities by 2006;
  - (4) 50% of facilities by 2008; and
  - (5) 80% of facilities by 2010.
- g. VA will emphasize research and development of energy conservation in the construction and building design of all VA facilities.
- h. All administrations and staff offices must incorporate the use of Energy Star and other energy-efficient equipment within their facilities.
- **2. COMMODITY ACQUISITION.** As part of a general strategy to reduce energy consumption and reduce cost, administrations and staff offices will engage contractors to conduct commodity acquisition assessments (CAA). The CAA will evaluate current rate structures to ensure that cost savings opportunities are being explored and develop short- and long-term commodity acquisition plans, which will include findings, recommendations, and a strategic implementation plan.
- a. The contractor performing the CAA will evaluate all current commodity tariff structures and make certain that cost savings opportunities are being explored and implemented at the regional level (Veterans Integrated Service Network (VISN), Memorial Service Network (MSN), or Area Office). The CAA is the first phase of the energy assessment, which is discussed in the Energy Investment section of this handbook.
  - b. A CAA must include the following on a regional basis:
  - (1) Verification of correct tariff rates;
  - (2) Verification of current energy baseline;
  - (3) Report on current commodity acquisition plans;
    - (4) Short- and long-term commodity acquisition plans; and

- (5) A pro forma baseline, based upon commodity acquisition best practices<sup>1</sup>
- c. The findings of the CAA are to be approved by the appropriate regional energy board<sup>2</sup>, with oversight and guidance from a central energy board.
- d. To ensure that the CAA process is current, administrations and staff offices are required to contract for CAA for all energy-consuming assets to be updated on a regular (but no less then annual) basis, through independent consultants. The original CAA and the updates will be the basis for commodity acquisition actions by the regional energy boards.
- e. The criteria for prioritizing energy investments for each administration and staff office will be based on energy consumption, coordination with other studies, low scoring facilities for the Energy Star buildings, and meeting the energy audit cycle requirements.
- f. All administrations and staff offices will conduct annual utility audits to reconcile consumption and costs associated with matching utility bills. Also, these audits will verify that a facility is paying the rates agreed to in contracts between VA and the utility provider.
- g. A central energy board will be created, comprised of the designated energy liaisons for each administration and staff office. This board will be responsible for establishing policies, procedures and guidelines for the regional energy boards.
- h. Regional energy boards will be created, comprised of designated board members from each administration and staff office, located within the designated region (number and locations to be determined). These boards will be responsible for the administration and implementation of policies, procedures, and guidelines set forth by the central energy board.
- **3. ENERGY INVESTMENTS**. Energy investments will aid in fully accomplishing the goals and requirements of the energy conservation program. The energy investment strategies will be accomplished through financial decisions ranging from the use of appropriated funds (major construction, minor construction, non-recurring maintenance) to third-party alternative financing (enhanced-use leases, energy savings performance contracts (ESPCs), and utility energy savings contracts). A five-step energy investment process is outlined as follows:

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<sup>&</sup>lt;sup>1</sup> Commodity acquisition best practices will be developed through an ongoing pilot program.

<sup>&</sup>lt;sup>2</sup> More information on Energy Boards can be found in paragraph 5 of the handbook.

### a. Step One – Energy Assessment Contractor Selection.

(1) The Office of Asset Enterprise Management (OAEM) will identify, through market research, qualified contractors to perform energy assessments (EA). OAEM will provide a list of pre-qualified EA contractors to the administrations and staff offices.

- (2) When contracting for EA(s), the administrations and staff offices shall select no fewer than three of the pre-qualified contractors to competitively bid on the EA and then select the best value contractor and obtain the necessary procurement approvals.
- (3) OAEM will provide assistance in developing/reviewing the statement of work and selection criteria, and/or in reviewing the bids.

#### b. Step Two – Energy Assessment Performance.

(1) The selected contractor will perform phase I of the EA of the commodity acquisition assessment (discussed in the paragraph 2 of this handbook);

- (2) The selected contractor will also perform the initial EA (phase II of the EA).
- (3) The initial EA will:
- (a) Identify energy needs and deficiencies;
- (b) Identify energy conservation measures to correct energy needs/deficiencies;
- (c) Develop short- and long-term investment plans, prioritization strategies, and funding strategies; and
  - (d) Provide a prioritized list of energy conservation measures.

#### c. Step Three – Energy Investment Strategic Plan.

- (1) The completed CAA and initial EA will be the foundation for the energy investment strategic plan that will include the following:
  - (a) Short-term commodity acquisition plan;
  - (b) Long-term commodity acquisition plan;
  - (c) Short-term investment plan;
  - (d) Long-term investment plan;
  - (e) Implementation and acquisition plan for short-term investments;
- (f) For VHA Projects Confirmation of Capital Asset Realignment for Enhanced Services (CARES) approval of investment strategies;

g) Decision matrix, outlining justification for the selected investment option. Investment options include appropriated funds (major construction, minor construction, or non-recurring maintenance), or third-party alternative financing (enhanced-use lease, utility energy savings contracting, or energy savings performance contracting); and

- (h) List of selected energy conservation measures (ECMs) to be accomplished.
- (2) Planning Approval. The Energy Investment Strategic Plan will require OAEM approval before moving forward with the procurement phase. If the accumulative total of the ECMs selected meet established capital investment thresholds, the normal process of the Capital

Investment Board/Strategic Management Council (SMC) will occur. If planned ECMs are below established thresholds, investments are still subject to OAEM approval.

#### d. Step Four - Investment Process.

- (1) Administrations and staff offices will procure the identified ECMs in accordance with the OAEM-approved Energy Investment Strategic Plan.
- (2) For competitive pricing procurement processes using appropriated funds or third-party financing, obtain a detailed EA (phase III of the EA) based on the selected ECMs and a solicitation package from the EA contractor. The solicitation package will be used for a competitive pricing procurement either through full and open competition or the General Services Administration (GSA) Federal Supply Schedule. Selection of the contractor will be based on criteria identified within the solicitation package.
- (3) The non-competitive pricing procurement process for third party financing will use one of the following: Department of Energy, Department of Defense, or GSA ESPC procedures, or VA's enhanced-use leasing procurement tools, or a GSA utility energy savings contract. VA would provide the initial energy assessment to the selected energy savings contractor (ESCO) for the procurement process identified by the approved investment decision matrix. The procurement process will follow the guidelines of the selected agency's procurement tools.
- (4) The non-competitive pricing procurement process will be accomplished either at VACO or administration/staff office regional level after receiving approval of the proposed investment strategies. The following additional VA procurement guidelines are to be used in performing the procurement method:
- (a) Elimination or substantial reduction of contingent termination liabilities compared to those experienced in current ESCP third-party financing.
- (b) The investment interest rate for any ESPC delivery order shall not exceed a maximum of 100-125 basis points above the 10-year Treasury Bond rate published on the date of closing. Any proposed higher rates will be submitted in writing with justification for approval to OAEM.
- (c) The total payback period of the amortized debt shall not exceed 10 years or the useful life of any one ECM.

- (d) ESCO subcontractor mark-ups (overhead and profit) shall not exceed 20 percent.
- (e) ESCO total mark-up (overhead and profit) on subcontractor and equipment-only proposals shall not exceed 7 percent.
  - (f) ESCO total overhead on labor and materials shall not exceed 15 percent.
  - (g) ESCO total profit on labor and materials shall not exceed 5 percent.
- (h) ESCO total project additive markups (including subcontractors) shall not exceed 35 percent.
- (5) Written approval to execute a delivery order will be required from OAEM in addition to any other approval processes required by other procurements oversight offices. OAEM's approval will be made upon receipt of a "certification of compliance" to the above procurement guidelines.
- (6) The procurement process guidelines and subsequent certification of compliance does not eliminate, nor is a substitute to any other statutory requirement for ESPCs or required agency acquisition reviews/approval.
- (7) OAEM will provide assistance in reviewing solicitations and proposals. Final selection is subject to OAEM for approval.
- (8) The EA contractor (phase IV of the EA oversight during installation) will have oversight authority of the ESCO during the ECM installation process to ensure the ECMs are being installed properly, efficiently, and without unnecessary costs.
  - e. Step Five Measurement and Verification.
- (1) The required measure and verification (M/V) method will be metering. Any alternative method of measurement and verification will be the exception and will require OAEM approval for its use.
- (2) The ESCO is to follow the approved measurement and verification (M/V) plan to continue to ensure the performance of the ECMs. The EA contractor (phase V of the EA post-installation oversight) is to oversee the M/V process to assure compliance.
- **4. REPORTING REQUIREMENTS.** Energy use and cost data for all facilities is required from all administrations and staff offices. Data will be entered into a Web-based energy consumption and cost database. The reporting process will include:
  - a. Quarterly energy reports from all administrations and staff offices
  - b. Real-time metering of primary commodity types and secondary utilization (when cost effective) will be installed in all facilities. This metering will allow for real-time data

collection of commodity and energy consumption, in order to validate energy savings. Until real-time metering is installed, facilities shall perform periodic audits of utility bills in order to ensure proper tariff structure and to ensure energy savings are occurring.

- c. Each administration and staff office will provide OAEM with annual energy reports (as defined below) no later then October 31. Annual report submissions shall comply with Department of Energy and Office of Management and Budget guidelines.<sup>3</sup> This report shall contain:
- (1) Office of Management and Budget Circular A-11, exhibit 55, Annual Energy Management Data Report;
  - (2) Annual Energy Scorecard;
- (3) Annual Report on Federal Government Energy Management and Conservation Programs;
- (4) Annual report on previous fiscal year's commodity acquisition, energy consumption, energy investments, and energy program management achievements;
- (5) Annual implementation report on next fiscal year's management strategies, commodity acquisition strategies, and energy investment strategies
- **5. MANAGEMENT TOOLS.** Administrations and staff offices will incorporate the use of various management tools in order to facilitate successful implementation of the VAECP. These tools include, but are not limited to, the following:
- a. Energy Liaisons. Each administration and staff office will provide OAEM with the names of an energy liaison(s). The liaisons will work with OAEM as well as the central and regional energy boards.
- b. Energy Manager. The administrations will designate an energy manager at each VISN, MSN, and Area Office.

<sup>3</sup> Note: The specifics and format for these items are subject to change annually. All report submissions shall follow the requirements of the annual energy report call letter from DOE and OMB.

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c. Energy Boards. a centralized energy board will provide policies, procedures, and guidelines to the regional energy boards. Regional energy boards will implement the policies, procedures and guidelines, aid in the review of CAAs, and monitor regional energy issues, as identified.

- d. Incentives Program. Each administration and staff office will implement an incentive program that will be submitted in writing to OAEM for approval. These incentive programs will recognize and reward successful implementation of energy management energy management, renewable energy, water conservation, ESPC energy-efficient procurement, sustainable design, and beneficial landscaping. Awards will be presented to administrations, staff offices, facilities, and employees. Additional awards may be given to recognize ingenuity in improving the Department's energy consumption.
- e. Program Performance Measures. Administrations and staff offices will implement performance measures in order to track the Department's progress towards achievement of energy goals and progress towards implementing the program. Progress will be tracked, and each administration and staff office will receive an annual energy report card.
- f. Employee Performance Standards. The position descriptions and performance evaluations of key personnel will incorporate measures for successful achievement in energy savings.
- g. Training. VA will implement outreach and awareness programs to promote the use of energy-efficient products. Energy personnel can gain relevant knowledge and experience through technical courses, seminars, conferences, software, videos, and professional certification. Emphasis will be placed on programs for personnel that will provide the practical benefits of energy efficiency with a focus on areas of operations, maintenance and project management. OAEM will use Web sites, reports, quarterly newsletters, and guidebooks to foster employee awareness. VA will periodically host relevant conferences or training events.
- h. Energy Star. Administrations and staff offices will purchase Energy Star and other energy-efficient products.
- i. Energy Conservation/Demand Side Management. VA will actively investigate and participate in Energy Conservation/Demand Side Management using various types of programs.
- j. Showcase Facilities. VA will construct and renovate facilities to be designated as showcase facilities. The facilities should contain systems that apply some of the best energy-efficient technologies. Administrations and staff offices will nominate one facility to be showcased each year to recognize its energy accomplishments.

#### 6. GLOSSARY.

a. Central Energy Board. A board comprised of the designated energy liaisons for each administration and staff office. This board will be responsible for establishing policies, procedures, and guidelines for the regional energy boards.

b. Commodity. A purchasable unit of energy such as electricity, water, natural gas, steam, petroleum.

- c. Commodity Acquisition Assessment (CAA). The first phase of an EA, it reviews current commodity rate structures to ensure cost savings opportunities are being explored and implemented. The commodity acquisition assessment develops the energy baseline and develops short- and long-term commodity acquisition plans.
- d. Energy Assessment (EA). A five-phase procurement process. Phase I is the commodity acquisition assessment. Phase II is the initial energy assessment, also known as initial energy audit, and identifies energy deficiencies and needs. Phase III is the detailed energy

assessment, also known as a detailed energy audit. Phase IV is the oversight of the installation. Phase V is post-installation oversight and monitoring.

- e. Energy Conservation Measures (ECMs). Energy efficient capital improvements made to the facilities that are implemented for the purpose of saving energy.
  - f. Energy Goals. Energy conservation goals mandated by the federal government.
  - g. Energy Savings Contractor (ESCO). Contractors that are certified to install ECMs.
- h. Energy Savings Performance Contract (ESPC). Performance-based contract issued to an ESCO to install ECMs. The contractor is typically paid through realized energy cost savings.
- i. Investment Decision Matrix. A VA document used for assessing an investment opportunity determining the most efficient funding vehicle to complete the energy investment.
- j. Investment Option. The funding/procurement mechanism used to accomplish energy needs and deficiencies. This includes the use of appropriated funds (major, minor, non-recurring maintenance) and third-party alternative financing (enhanced-use leases, energy savings performance contracts, and utility energy savings contracts).
- k. Regional Energy Boards. Boards comprised of administration and staff office personnel to manage commodity acquisition purchases and strategies, and other duties as assigned. The regional boards will be responsible for the administration and implementation of the policies, procedures, and guidelines set forth by the Central Energy Board.